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EXAMINER

CEHIC, KENAN

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/532,636	Applicant(s) MATSUI ET AL.
	Examiner KENAN CEHIC	Art Unit 2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>03/06/2007, 07/22/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. Figure 30 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
2. In addition to Replacement Sheets containing the corrected drawing figure(s), applicant is required to submit a marked-up copy of each Replacement Sheet including annotations indicating the changes made to the previous version. The marked-up copy must be clearly labeled as "Annotated Sheets" and must be presented in the amendment or remarks section that explains the change(s) to the drawings. See 37 CFR 1.121(d)(1). Failure to timely submit the proposed drawing and marked-up copy will result in the abandonment of the application.

Specification

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.
4. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

5. Claim 1-28 objected to because of the following informalities:

For claim 1, “the received lower layer frame” in line 16 is the first occurrence. It is suggested to change this to – a received lower layer frame--. Similar problems exist in claim 2 line 16.

For claim 1, “the frame transfer apparatus” in line 28 seems to refer back to “at least one frame transfer apparatus” in line 4-5. It is suggested to change this to – said at least one frame transfer apparatus--. Similar problems exist in claim 2 line 24, claim 3 lines 3.

For claim 4, it is suggested to change “second information” in line 20, since the claim does not contain first information/information. A suggested change is -- information--. Similar problems exist in claim 6 lines 16.

For claim 5, “a predetermined time” in line 5 seems to refer back to “a predetermined time” in claim 4 line 23. It is suggested to change this to – said predetermined time --.

For claim 9, “the connection candidate list creation procedure” in line 2-3 and “the connection candidate list” in line 3-4 are first occurrences. It is suggested to change these to -- connection candidate list creation procedure—and --- connection candidate list--.

For claim 21, “the first setting target” in lines 33 seems to refer back to claim 21 lines 16. If this is true it is suggested to change this limitation to -- the first connection setting target--. Similar problems exist in claim 22 line 12-13, claim 23 line 42, claim 23 line 56, claim 24 lines 19-20, claim 25 line 4-5.

For claim 21, “the second setting target” in lines 34-35 seems to refer back to claim 21 lines 23. If this is true it is suggested to change this limitation to -- the second connection

setting target--. Similar problems exist in claim 22 line 19-20, claim 23 lines 43-44, claim 23 lines 66-67, claim 25 line 10.

For claim 23, “the connectionless packet communication terminals” in line 13-14 are the first occurrence. It is suggested to change this to -- connectionless packet communication terminals--.

For claim 23, “the third setting target” in lines 50 seems to refer back to claim 23 lines 26. If this is true it is suggested to change this limitation to -- the third connection setting target--. Similar problems exist in claim 23 lines 54-55, claim 24 lines 12-13, claim 25 line 3.

For claim 23, “the fourth setting target” in line 60-61 is the first occurrence. It is suggested to change this to – a fourth setting target --. Similar problems exist in claim 23 lines 68, claim 24 lines 33-34, claim 25 line 8-9.

Dependent claims are objected based on their dependency on objected claims.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 1-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

For claim 1, "the packet transfer apparatus" in line 14, lacks antecedent basis. It is not clear which packet transfer apparatus the applicant is referring to. Similar problems exist in claim 2 line 14

For claim 1, "counts a quantity of the transferred lower layer frame" in line 38-39 is not clear. Quantity implies plural, while "the transferred lower layer frame" is a singularity. It seems the applicant was referring to --counts a quantity of transferred lower layer frames--. Similar problems exist in claim 4 lines 15-17.

For claim 1, "for each type of lower layer address pair contained in the first information received" in lines 39-41, contradicts the earlier assertion of "first information" in claim 1 lines 27-32. The limitation in lines 39-41 implies that there are multiple types of pairs in the first information, while lines 27-32 state that there is only one.

For claim 1, "the sending destination" in line 57 is unclear. In the earlier limitations of claim 1, there is no "sending destination" in the first and second tables.

For claim 3, "the frame information" in line 5 has no antecedent basis.

For claim 3, limitations "corresponding to the destination address to the transmission source address of the lower layer address pair contained in the first information" in lines 7-9 are not clear and incomprehensible. It is not clear what the applicant is trying to claim.

For claim 5, "the count" in line 3 has no antecedent basis.

For claim 9, "the assigned flows" in line 12 has no antecedent basis.

For claim 17, "for each flow for the received packet" in lines 8-9 is not clear. It is not clear what the applicant is trying to claim.

Dependent claims are rejected based on their dependency on rejected claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
7. Claim 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wetherall et al. (US 2005/0018608) in view of Wetherall (US 7,058,015) and Huang (US 6,618,397).

For claim 2, Wetherall discloses a packet communication method (see fig 2;200) using a plurality of packet transfer apparatuses (see fig 1; 106a-f “routing devices”) which are connected to a network (see fig 1; 100) and transfer a lower layer frame (see section 0007 “packets” and section 0021 “packets”), at least one frame transfer apparatus (see fig 1; “Sensor”; 104a-h, “To/From Sensors” and section 0023 “sensors....report to director....sensors...deliver”) which mediates transfer (see section 0023

"Director....determines...regulation ...de-regulation...sensors...deliver regulation and de-regulation instruction to routing devices...for director") of the lower layer frame (see section 0007 "packets" and section 0021 "packets") between the packet transfer apparatuses (see fig 1; 106a-f "routing devices") through the network (see fig 1; 100), and a network control server (see fig 1; 102) which is connected to the packet transfer apparatuses (see fig 1; 102 "To/From sensors" and section 0023 "sensors....coupled to routing devices") and the frame transfer apparatus (see fig 1; 102 and "To/From Sensors" and section 0024 "deliver regulation and de-regulations instructions...for director 102" and section 0036 "102 includes send-receive function 302") and controls a communication route (see section 0009 "regulates network traffics" and section 0020 "manage network traffic routing by routing devices" and section 0021 "Director...manages network traffic routing.....regulating and de-regulating network traffic routing by routing devices") of the lower layer frame (see section 0007 "packets" and section 0021 "packets") in the network (see fig 1; 100) by giving an instruction to the packet transfer apparatuses (see section 0023 "Director....determines...regulation ...de-regulation...sensors...deliver regulation and de-regulation instruction to routing devices...for director") and the frame transfer apparatus (see section 0023 "Director....determines...regulation ...de-regulation...sensors...deliver regulation and de-regulation instruction to routing devices...for director"), a counter procedure which counts (see section 0029 "source and destination addresses....102 receives network traffic reports on the network traffic routed through routing devices...reportedvarious statistics...information carried as part of the packet may be used....to divide....into

different traffic types...volume of data with specific source and destination address combinations”), for each type of lower layer address pair (see section 0029 “source and destination addresses....102 receives network traffic reports on the network traffic routed through routing devices...reportedvarious statistics...information carried as part of the packet may be used....to divide....into different traffic types...volume of data with specific source and destination address combinations”), a quantity of the lower layer address (see section 0029 “number of packets per second”) pair extracted by the extraction procedure (see section 0023 “sensors....to monitor...network traffic route through the corresponding routing devices”) first information (see section 0025 “gather up the relevant data” and section 0029 “reported data may also include.... volume of data with specific source and destination address combinations”) representing the lower layer address pair (see section 0029 “number packets per second....source and destination addresses....102 receives network traffic reports on the network traffic routed through routing devices...reportedvarious statistics...information carried as part of the packet may be used....to divide....into different traffic types...volume of data with specific source and destination address combinations”) counted (see section 0029 “number of packets per second”) by the counter procedure (see section 0029 “source and destination addresses....102 receives network traffic reports on the network traffic routed through routing devices...reportedvarious statistics...information carried as part of the packet may be used....to divide....into different traffic types...volume of data with specific source and destination address combinations”) beyond (see section 0038 “exceeding the margin or the “no-to-exceed” limit....network traffics of the particular type have

exceeded the margin of the “not-to-exceed” limit”.) a predetermined threshold value within a predetermined time (see section 0029 “not-to exceed....number of packets per second”).

For claim 4, Wetherhall discloses A packet communication method (see fig 2;200) using a plurality of packet transfer apparatuses (see fig 1; 106a-f “routing devices”) which are connected to a network (see fig 1; 100) and transfer a lower layer frame (see section 0007 “packets” and section 0021 “packets”), at least one frame transfer apparatus (see fig 1; “Sensor”; 104a-h, “To/From Sensors” and section 0023 “sensors....report to director....sensors...deliver”) which mediates transfer (see section 0023 “Director....determines....regulation ...de-regulation...sensors...deliver regulation and de-regulation instruction to routing devices...for director”) of the lower layer frame (see section 0007 “packets” and section 0021 “packets”) between the packet transfer apparatuses (see fig 1; 106a-f “routing devices”) through the network (see fig 1; 100), and a network control server (see fig 1; 102) which is connected to the packet transfer apparatuses (see fig 1; 102 “To/From sensors” and section 0023 “sensors....coupled to routing devices”) and the frame transfer apparatus (see fig 1; 102 and “To/From Sensors” and section 0024 “deliver regulation and de-regulations instructions...for director 102” and section 0036 “102 includes send-receive function 302”) and controls a communication route (see section 0009 “regulates network traffics” and section 0020 “manage network traffic routing by routing devices” and section 0021 “Director...manages network traffic routing.....regulating and de-regulating network

traffic routing by routing devices”) of the lower layer frame (see section 0007 “packets” and section 0021 “packets”) in the network (see fig 1; 100) by giving an instruction to the packet transfer apparatuses (see section 0023 “Director....determines...regulation ...de-regulation...sensors...deliver regulation and de-regulation instruction to routing devices...for director”) and the frame transfer apparatus (see section 0023 “Director....determines...regulation ...de-regulation...sensors...deliver regulation and de-regulation instruction to routing devices...for director”)

Wetherhall is silent about:

As regarding claim 2, lower layer frame containing an encapsulated upper layer packet; the packet transfer apparatus comprises an extraction procedure which extracts, from the received lower layer frame, a lower layer address pair including a transmission source address and destination address of a lower layer; and a transmission procedure which transmits, to the frame transfer apparatus, first information representing the lower layer address pair.

Wetherall from the same or similar field of endeavor discloses a communication system with the following features:

For claim 2, Wetherhall discloses characterized in that the packet transfer apparatus (see fig 2; 106a-c “Router”) comprises an extraction procedure (see col 6 lines 1-15 “request a router or routing devices for data depicting network traffic routed through the routing device....As alluded to, such data are network traffic statistical data”) which extracts,

from the received lower layer frame (see col 4 lines 40-60 “characteristics of packets of data”), a lower layer address pair (see col 4 lines 40-60 “specific source and destination address combinations”) including a transmission source address and destination address of a lower layer (see col 4 lines 40-60 “specific source and destination address combinations”),

and a transmission procedure which transmits (see col 6 lines 1-25 “request a router...for data....gathered network traffic data”) , to the frame transfer apparatus (see fig 1; Sensor), first information (see col 6 lines 1-25 “request a router...for data....gathered network traffic data”) representing the lower layer address pair (see col 4 lines 40-60 “specific source and destination address combinations”)

Huang from the same or similar field of endeavor discloses a communication system with the following features:

As regarding claim 2, lower layer frame (see fig 2; 110) containing an encapsulated upper layer packet (see fig 2; 106);

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Wetherhall by using the features, as taught by Wetherhall and Huang, in order to provide a system that is scalable and has a distributed architecture for handling large volumes of data traffic in order to ensure quality of service (see Wetherall (US 7,058,015) col 1-2); in order to comply with the standard encapsulation model, where each layer can understand the data in the encapsulated packet

and in order to be able to communicate using different protocol which each has its advantages (see Huang cols 1-2).

8. Claim 4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wetherall et al. (US 2005/0018608) in view of Huang (US 6,618,397).

For claim 4, Wetherall discloses A packet communication method (see fig 2;200) using a plurality of packet transfer apparatuses (see fig 1; 106a-f and 104a-h and section 0024 “sensor...integrally disposed within routing devices”) which are connected to a network (see fig 1; 100) and transfer a lower layer frame (see section 0007 "packets" and section 0021 “packets”), at least one frame transfer apparatus (see fig 1; 106a-f and 104a-h and section 0021 “routing paths traversed by the packets”) which mediates transfer (see section 0023 "Director....determines...regulation ...de-regulation...sensors...deliver regulation and de-regulation instruction to routing devices...for director") of the lower layer frame (see section 0007 "packets" and section 0021 “packets”) between the packet transfer apparatuses (see fig 1; 106a-f and 104a-h and section 0021 “routing paths traversed by the packets”) through the network (see fig 1; 100), and a network control server (see fig 1; 102) which is connected to the packet transfer apparatuses (see fig 1; 106a-f and 104a-h and section 0024 “sensor...integrally disposed”) and the frame transfer apparatus (see fig 1; 102 and “To/From Sensors” and section 0024 “deliver regulation and de-regulations instructions...for director 102" and section 0036 "102 includes send-receive function 302") and controls a communication route (see section

0009 “regulates network traffics” and section 0020 “manage network traffic routing by routing devices” and section 0021 “Director...manages network traffic routing.....regulating and de-regulating network traffic routing by routing devices”) of the lower layer frame (see section 0007 "packets" and section 0021 “packets”) in the network (see fig 1; 100) by giving an instruction to the packet transfer apparatuses (see section 0023 "Director....determines...regulation ...de-regulation...sensors...deliver regulation and de-regulation instruction to routing devices...for director") and the frame transfer apparatus (see section 0023 "Director....determines...regulation ...de-regulation...sensors...deliver regulation and de-regulation instruction to routing devices...for director"), characterized in that the frame transfer apparatus (see fig 1; 106a-f and 104a-h and section 0024 “sensor...integrally disposed”) comprises a counter procedure which counts (see section 0029 “source and destination addresses....102 receives network traffic reports on the network traffic routed through routing devices....reportedvarious statistics...information carried as part of the packet may be used....to divide....into different traffic types...volume of data with specific source and destination address combinations”), for each type of lower layer address pair (see section 0029 “source and destination addresses....102 receives network traffic reports on the network traffic routed through routing devices...reportedvarious statistics...information carried as part of the packet may be used....to divide....into different traffic types...volume of data with specific source and destination address combinations”) which is instructed by the packet transfer apparatus to count (see section 0025 “commands....to gather up the relevant data”), and a transmission procedure which

transmits, to the network control server (see section 0023 “report to the director” and section 0029 “director 102 receive network traffic reports”), second information representing the lower layer address pair counted (see section 0029 “source and destination addresses....102 receives network traffic reports on the network traffic routed through routing devices...reportedvarious statistics...information carried as part of the packet may be used....to divide....into different traffic types...volume of data with specific source and destination address combinations”) by the counter procedure (see section 0029 “source and destination addresses....102 receives network traffic reports on the network traffic routed through routing devices...reportedvarious statistics...information carried as part of the packet may be used....to divide....into different traffic types...volume of data with specific source and destination address combinations”) beyond a predetermined threshold value within a predetermined time (see section 0029 “not-to exceed....number of packets per second”).

For claim 6, Wetherhall discloses packet communication method (see fig 2;200) using a plurality of packet transfer apparatuses (see section 0007 "packets" and section 0021 “packets”) which are connected to a network (see fig 1; 100) and transfer a lower layer frame (see fig 1; 106a-f and 104a-h and section 0021 “routing paths traversed by the packets”), at least one frame transfer apparatus (see fig 1; 106a-f and 104a-h and section 0021 “routing paths traversed by the packets”) which mediates transfer (see section 0023 "Director....determines...regulation ...de-regulation...sensors...deliver regulation and de-regulation instruction to routing devices...for director") of the lower layer frame (see

section 0007 "packets" and section 0021 "packets") between the packet transfer apparatuses (see fig 1; 106a-f and 104a-h and section 0021 "routing paths traversed by the packets") through the network (see fig 1; 100), and a network control server (see fig 1; 102) which is connected to the packet transfer apparatuses (see fig 1; 106a-f and 104a-h and section 0024 "sensor...integrally disposed") and the frame transfer apparatus (see fig 1; 102 and "To/From Sensors" and section 0024 "deliver regulation and de-regulations instructions...for director 102" and section 0036 "102 includes send-receive function 302") and controls a communication route (see section 0009 "regulates network traffics" and section 0020 "manage network traffic routing by routing devices" and section 0021 "Director...manages network traffic routing.....regulating and de-regulating network traffic routing by routing devices") of the lower layer frame (see section 0007 "packets" and section 0021 "packets") in the network (see fig 1; 100) by giving an instruction to the packet transfer apparatuses (see section 0023 "Director....determines...regulation ...de-regulation...sensors...deliver regulation and de-regulation instruction to routing devices...for director") and the frame transfer apparatus (see section 0023 "Director....determines...regulation ...de-regulation...sensors...deliver regulation and de-regulation instruction to routing devices...for director"), characterized in that the network control server (see fig 1; 102) comprises a calculation procedure (see section 0020 "manage network traffic...ensure a desired not-to exceed network traffic profile...."; 0021 "re – routing...routing through different routing paths or even to different destinations" and section 0032 "regulation....rate limited....re-routing") which, upon receiving second information

representing an arbitrary transmission source address and destination address (see section 0029 “source and destination addresses....102 receives network traffic reports on the network traffic routed through routing devices...reportedvarious statistics...information carried as part of the packet may be used....to divide....into different traffic types...volume of data with specific source and destination address combinations”) from the frame transfer apparatus (see fig 1; 106a-f and 104a-h and section 0021 “routing paths traversed by the packets”), executes calculation to optimize the communication route (see section 0021 “re – routing...routing through different routing paths or even to different destinations”) in the network (see fig 1; 100) between the transmission source address and the destination address (see section 0029 “source and destination addresses....102 receives network traffic reports on the network traffic routed through routing devices...reportedvarious statistics...information carried as part of the packet may be used....to divide....into different traffic types...volume of data with specific source and destination address combinations”), and a change procedure which issues an instruction to change a sending destination (see section 0020 “manage network traffic...ensure a desired not-to exceed network traffic profile....”; 0021 “re – routing...routing through different routing paths or even to different destinations” and section 0032 “regulation...rate limited....re-routing”) of the lower layer frame (see section 0007 “packets” and section 0021 “packets”) to the packet transfer apparatus (see fig 1; 106a-f and 104a-h and section 0021 “routing paths traversed by the packets”) and frame transfer apparatus (see fig 1; 106a-f and 104a-h and section 0021 “routing paths traversed by the packets”) included between the transmission source address (see section

0029 “source and destination addresses....102 receives network traffic reports on the network traffic routed through routing devices...reportedvarious statistics...information carried as part of the packet may be used....to divide....into different traffic types...volume of data with specific source and destination address combinations”) and the destination address (see section 0021 “excess traffic...Re-routing....different destinations”) on the basis of the calculation result (see section 0020 “manage network traffic...ensure a desired not-to exceed network traffic profile....”); 0021 “re – routing...routing through different routing paths or even to different destinations” and section 0032 “regulation....rate limited....re-routing”).

Wetherhall is silent about:

As regarding claim 4 and 6, lower layer frame containing an encapsulated upper layer packet;

Huang from the same or similar field of endeavor discloses a communication system with the following features:

As regarding claim 2, lower layer frame (see fig 2; 110) containing an encapsulated upper layer packet (see fig 2; 106);

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Wetherhall by using the features, as taught by Huang, in order to comply with the standard encapsulation model, where each layer can understand the data in the encapsulated packet and in order to be able to communicate using different protocol which each has it advantages (see Huang cols 1-2).

9. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wetherall et al. (US 2005/0018608) in view of Wetherall (US 7,058,015) and Huang (US 6,618,397) as applied to claim 1 above, further in view of Rogers et al. (US 7,110,391)

For claim 3, Wetherall, Wetherall and Huang discloses the claimed invention as described in paragraph 7.

For claim 3, Wetherall (US 7,058,015) further discloses characterized in that in transmitting the first information (see col 6 lines 1-25 “request a router...for data....gathered network traffic data”) to the frame transfer apparatus (see fig 1; Sensor), the transmission procedure (see col 6 lines 1-25 “request a router...for data....gathered network traffic data”) transmits information (see col 6 lines 1-25 “request a router...for data....gathered network traffic data”) about the destination address contained (see col 4 lines 40-60 “specific source and destination address combinations”) in the frame information (see col 4 lines 45-60 “packets of data”) corresponding to the destination address to the transmission source address (see col 4 lines 40-60 “specific source and destination address combinations”)
of the lower layer address pair (see col 4 lines 40-60 “specific source and destination address combinations”) contained in the first information (see col 6 lines 1-25 “request a router...for data....gathered network traffic data”).

Wetherall, Wetherall and Huang are silent about:

For claim 3, a destination address of an upper layer.

Rogers from the same or similar field of endeavor discloses a communication network with the following features:

For claim 3, a destination address of an upper layer (see col 8 lines 45-60 “UDP port number contained in the UDP header of the IP packet”).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Wetherall, Wetherall and Huang by using the features, as taught by Rogers, in order to provide an improved method of coupling telephone devices to a telephone exchange system and to provide comply with the standard encapsulation model, where each layer can understand the data in the encapsulated packet and in order to be able to communicate using different protocol which each has its advantages (see col 2-3, 6)

10. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wetherall et al. (US 2005/0018608) in view of Huang (US 6,618,397) as applied to claim 4 above, further in view of Klinker et al. (US 2007/0140128)

For claim 5, Wetherall and Huang disclose the claimed invention as described in paragraph 8.

For claim 5, Wetherall discloses count processing procedure counts (see section 0029 “source and destination addresses....102 receives network traffic reports on the network traffic routed through routing devices...reportedvarious statistics...information carried as part of the packet may be used....to divide....into different traffic types...volume of data with specific source and destination address combinations”), with

a count counts (see section 0029 “number of packets per secondsource and destination addresses....102 receives network traffic reports on the network traffic routed through routing devices...reportedvarious statistics...information carried as part of the packet may be used....to divide....into different traffic types...volume of data with specific source and destination address combinations”) and a lower layer address pair (see section 0029 “source and destination addresses....102 receives network traffic reports on the network traffic routed through routing devices...reportedvarious statistics...information carried as part of the packet may be used....to divide....into different traffic types...volume of data with specific source and destination address combinations”).

Wetherall and Huang are silent about:

For claim 5, an entry of an arbitrary flow whose count value does not increase in a predetermined time.

Klinker from the same or similar field of endeavor disclose a communication system with the following features:

For claim 5, Klinker discloses which deletes, an entry of an arbitrary flow (see section 0176 “deleting on or more inactive flows”) whose count value does not increase in a predetermined time (see section 0176 “inactive data flow associated with one or more remote destination addresses”).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Wetherhall and Huang by using the features, as taught by Klinker, in order to provide a suitable multi-homing NAT that can control routing of

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symmetric data traffic between local source and a remote destination and to control routing of data over multiple networks so that users that are connected over multiple networks can communicate properly (see section 0008-0012).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US-5,317,563 A	05-1994	Oouchi et al.	370/232
US-6,813,245 B1	11-2004	Furuno, Takayuki	370/236
US-7,023,857 B1	04-2006	Chiussi et al.	370/395.4
US-7,304,942 B1	12-2007	Malladi et al.	370/229

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KENAN CEHIC whose telephone number is (571)270-3120.

The examiner can normally be reached on Monday through Friday 8:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kwang Yao can be reached on (571) 272-3182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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KC

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